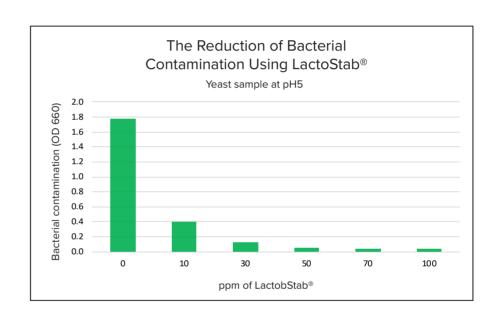


LupuStab® and LactoStab® control bacteria naturally

Saccharomyces cerevisiae can often be a very delicate organism which needs care, protection and expertise to enable it to thrive.

Unfortunately, the very conditions used to grow yeast are also attractive contaminating to bacteria. These contaminant bacteria can disrupt yeast production by causing competition nutrients, flocculation and undesirable metabolites, such as dextran. This can stress the yeast and negatively impact on the yeast fermentation process as well as quality and performance standards.





Key advantages of LupuStab® & LactoStab®

- Selectively inhibit common Gram-positive bacteria found in yeast fermentations
- May be used in seed, commercial or extraction stages
- Does not harm yeast or impact its performance
- Quality, yield, activity, storage and taste of yeast are not negatively affected
- Can be used preventatively or as a standby
- Reduce contamination carry-over into other applications, e.g. alcoholic fermentations
- Improves your yeast plant operations
- Ease of downstream processing
- Clean label friendly



The solution comes to us naturally

Yeast and hops have worked hand in hand together for centuries within the brewing industry. BetaTec Hop Products work beyond brewing to provide naturally-derived solutions to Gram-positive bacterial contamination during yeast production. This can be achieved with our clean-label hop processing aids: LupuStab® and LactoStab®.

The Versuchsanstalt der Hefeindustrie (Independent Yeast Institute of Berlin), described their studies with BetaTec Hop products. "When dosed correctly, upon advice by the BetaTec technical support team, Gram-positive contaminants are reduced, without harming yeast activity or quality."

BetaTec Hop Products have demonstrated the reduction of troublesome infections, such as Leuconostoc bacteria, on average by between 100 to 10,000-fold $(2 - 4 \log)$. These results have been obtained in laboratory trials and also online yeast plants in day-to-day production. Removing such contaminants inevitably means easier downstream processing as well as enabling yeast the chance to display improved quality and performance, due to less stress from bacterial infection.







BetaTec is the first company worldwide specialising in the application of hops and hop-derived compounds for use in "beyond brewing" industries. Our product portfolio includes natural fermentation aids, antibacterials, flavours and functional ingredients. Our key business areas are alcohol, yeast and sugar production

All BetaTec products are accompanied by on-site support, process optimisation and consulting.

Please contact our technical experts to learn how LupuStab® and LactoStab® can help you.

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